

A high-level monthly briefing on operations and activities at the U.S. Department of Energy's Idaho National Engineering and Environmental Laboratory – Home of Science and Engineering Solutions. Work at the lab supports the Department's business lines of energy security, national security, environmental quality and science.

■ ENERGY SECURITY – INEEL Supports Hydrogen Fuel Project

The INEEL and industry partner BWX Technologies, Inc. (BWXT) have joined to support a U. S. Navy project to design, build and test a first-generation fuel processor system that converts naval logistic fuel into a clean stream of hydrogen. The hydrogen is converted to electricity in a fuel cell and supplies the electrical needs of a new-generation surface ship. The diesel fuel processor was designed by BWXT. INEEL did additional process, mechanical and electrical design and will start-up and test the integrated design. The system is being fabricated and assembled by Idaho Falls subcontractor Atlas Mechanical and Industrial. BWXT is one of the corporations that manages the INEEL and is providing its corporate funds to supplement funds from the Office of Naval Research to support this project. The project complements the Department of Energy's national energy security mission, and is the INEEL's first large-scale hydrogen production demonstration project.

■ ENVIRONMENTAL QUALITY – Public Invited to Comment on Revised Cleanup Plan

The U.S. Department of Energy, Idaho Department of Environmental Quality and the U.S. Environmental Protection Agency have released a revised proposed plan for cleanup of a set of underground storage tanks at the Idaho National Engineering and Environmental Laboratory and are asking the public for comments on cleanup alternatives. The public comment period runs from April 15 through May 14. The agencies have revised the previous proposed plan because it called for waste to be shipped offsite for treatment at a facility that is no longer available. The agencies are now looking at three technologies for treatment of this waste. Detailed information is available in the Administrative Record file for Operable Unit 1-10. The Administrative Record is located at the DOE Reading Room of the INEEL Technical Library in Idaho Falls. Copies can be found at Albertsons Library on the Boise State University campus.

■ NATIONAL SECURITY – Wireless Test Bed Open for Business

In collaboration with Bechtel Telecommunications, the INEEL this month announced the opening of the Bechtel/INEEL Wireless Test Bed. The Test Bed offers large-scale, independent, end-to-end testing of wired and wireless next generation communication infrastructure including 3G/4G cellular, land mobile radios and wireless local area network systems. Over the past several months, the INEEL/Bechtel team of researchers and engineers has constructed three cell towers across 16 square miles at the Central Facilities Area on the INEEL site and has outfitted them with more than \$1 million-worth of radio and testing equipment, and modeling/simulation tools. Engineers have already begun test operations for a major carrier. Anticipated areas for future testing include base station equipment, antennas, handsets and the big-hitter for Homeland Security – 911 systems.

■ SCIENCE – INEEL Assists in Shuttle Investigation

Two representatives from the INEEL recently returned from the Johnson Space Center in Houston where they assisted the Columbia Accident Investigation Team. The INEEL assisted in building a detailed master logic diagram using SAPHIRE, a risk assessment software program the INEEL developed for use by the U.S. Nuclear Regulatory Commission and NASA. The INEEL assisted NASA with a numbering scheme to provide a reference system so engineers and managers could readily identify and track the status of possible accident initiating events and causes.

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